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Group 2700

To: Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Fr: George O. Saile, Reg. No. 19,572  
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Subject:

Serial No. 09/408,703 09/30/99



C.T. Horng, R.Y. Tong, K.C. Ju,  
M.M. Chen, J.W. Chang, Kochan Ju,  
Simon Liao

GIANT MAGNETORESISTIVE (GMR) SENSOR  
ELEMENT WITH ENHANCED MAGNETO-  
RESISTIVE (MR) COEFFICIENT

Grp. Art Unit: 2754

#### INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation  
In An Application.

The following Patents and/or Publications are submitted to  
comply with the duty of disclosure under CFR 1.97-1.99 and  
37 CFR 1.56. Copies of each document is included herewith.

U.S. Patent 5,731,936 to Lee et al., "Magnetoresistive  
(MR) Sensor with Coefficient Enhancing that Promotes Thermal  
Stability", discloses an anisotropic magnetoresistive (MR)  
sensor element, such as a soft adjacent layer (SAL) MR sensor  
element, with an enhanced MR resistivity sensitivity as well as  
an enhanced thermal stability.

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U.S. Patent 5,701,223 to Fontana, Jr. et al., "Spin Valve Magnetoresistive Sensor with Antiparallel Pinned Layer and Improved Exchange Bias Layer, and Magnetic Recording System Using the Sensor", discloses a spin valve magnetoresistive (SVMR) sensor element with improved magnetoresistive (MR) properties, such as an enhanced MR resistivity sensitivity, as well as improved chemical properties, such as an enhanced corrosion resistance of an antiferromagnetic pinning material layer within the spin valve SVMR sensor element.

U.S. Patent 5,763,108 to Chang et al., "High Saturation Magnetization Material and Magnetic Head Fabricated Therefrom", discloses a Cu seed layer.

U.S. Patent 5,768,071 to Lin, "Spin Valve Sensor with Improved Magnetic Stability of the Pinned Layer", discloses a spin valve magnetoresistive (MR) sensor element having an improved magnetic stability of a pinned ferromagnetic layer within the spin valve magnetoresistive (SVMR) sensor element.

U.S. Patent 5,268,806 to Goubau et al., "Magnetoresistive Transducer having Tantalum Lead Conductors", teaches a Cr seed layer.

Sincerely,



Stephen B. Ackerman,  
Reg. No. 37661